

## **ABSTRACT OF THE DISCLOSURE**

A ballast device having active ballasting circuit and method thereof, which are used for controlling a HID lamp's power supply real-timely and steadily, comprising: a power supply unit in said ballast device for generating an outer working voltage, which has a DC-DC transformer to step down the output voltage; a micro control unit, which fetches the parameters of the ballast device other than itself or the HID lamp's various working status and generates a predefined load current by these parameters; a PWM control unit, which has a PID control module, the PID control module calculates said predefined load current and the HID lamp's practical load current, and makes said DC-DC transformer change it's output voltage by the calculate results. The present invention has a simple structure and can change the load current real-timely and steadily.